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Original

NOTES ON SOME OF THE CLINICAL FEATURES OF TUMORS, THEIR ANATOMICAL CHARACTERS, MORPHOLOGICAL ELE- MENTS AND THEIR THERAPY, BY TENTATIVE, CONSTITU- TIONAL OR RADICAL MEASURES.

BY THOMAS H. MANLEY, M. D.
NEW YORK.

THE ESSENTIAL ELEMENTS OF TRUE TUMORS.

Having in the preceding sections of the study of tumors or tumor-like formations dwelt chiefly on the clinic features and similar characters of heterogenous masses, in many particulars bearing a close resemblance to neoplastic masses, it now remains with the limited space at our com-

mand for the remainder of this year to enter on, as fully as possible under the circumstances, the subject of true tumors, the benign as is generally understood, the malignant and that large class which both histologically and clinically occupies middle ground, the mixed.

Here, at the threshold of our undertaking, the pertinent question is

pressed on us—What is a tumor anyway?

This would seem a question easy of solution and readily answered by any tyro in surgery; it is one, however, which has not been answered yet, although there are endless definitions, for many phases of pathologic transmutation or degeneration are wanting in the physic features of what would support the derivation of the term, inasmuch as there is no augmentation of volume, but a destructive advance and final obliteration of the organ or structure first seized on.

Nevertheless some working scheme as a nosologic basis must be adopted, and the usual definition is rather relative than positive.

This confusion and obstacle was fully realized by Delbet in the opening chapter of his and Le Dentu's late superb and exhaustive work, when he declared "that the study of neoplasms constitutes one of the most obscure and difficult in the whole range of pathology, for while the immortal discoveries of Pasteur and his disciples scattered far and wide a brilliant light on a number of maladies, neoplasms remain enshrouded by an impenetrable obscurity, as, in spite of the accumulated efforts of many, we yet know nothing definite of either their pathology or etiology. Our knowledge is limited to an acquaintance with their evolution and morbid anatomy only."

Ranvier defined a tumor as "any new mass, constituted by a new formation manifesting a tendency to persistent increase." To this Heurteux added: "Any or all masses constituted of new elements having a tendency to increase independent of inflammatory action." Quenu, one of our latest and ablest authors on oncology, defines a tumor as "a new formation, distinct from all inflammatory processes." Delbet tells us that a tumor is "a neoformation constituted by a new tissue, engendered by super-activity of the cellular elements, which has for its character a typical development more or


less permanent. Definitions might be multiplied without in any manner further solving the question, for every one which I have seen are defective and vulnerable, and are not one whit more truly descriptive than Percival Potts' plain, laconic and homely description, viz., that "a tumor is a swelling that kills, generally painful, highly vascular, the malignant always ulcerating."

In order to intelligently pursue our studies of the common origin and the natural history of tumors something like a systematic classification is desirable. This may be reduced to two divisions, viz., a clinical and an anatomic separately, but for all ordinary purposes the latter will suffice, except when we commence to separate in a general way the benign and malignant.

This basis of the division here submitted will be anatomic and histologic, on the microscopic elements, the classification being on the lines of my former teacher, the celebrated anatomist and pathologist, the late Dr. Carl Heitzman. This is the most natural and rational, as it quite entirely conforms with the principles of those investigators who deny the production of any really new tissue elements in any tumor, or, as Green puts it, that "there is no element foreign to the normal tissue cells in any growth, as the prototype of all may be found in the healthy tissues of the body."

Conhenheim's doctrine of the embryologic origin of tumors has made its impress on the classification of many modern authors, but as the German pathologist's theories have not received the unreserved support of the greater number of authorities and are in direct conflict with Virchow's views and Sir James Paget's conclusions, it has been decided to submit such an arrangement here of the various groups as will deal particularly with anatomy, speculation and theorizing aside, thus steering clear of conflicting conclusions on the question of which part, if any, the primordal structures the mesoblast, the epiblast, the cetoblast and the blastemic structures play, as etiologic factors in fetal existence.

—Pierre Delbet, *Traite De Chir.*, Par. M. M. Le Dentu et Delbet, Vol I, p. 393, 1893.



Society Reports.

THE INTERNATIONAL MEDICAL CONGRESS AT MOSCOW.

By Our Special Correspondent.

The Twelfth International Medical Congress is past and gone into history. It now remains to deal with the colossal assembly of physicians rather than to make any comparative estimate of its scientific achievements.

A year or more ago it was expected on this side of the Atlantic that the contingent from America to the great city of the Muscovite nation would be a very large one.

It seemed that common gratitude to our powerful and faithful ally would demand the cordial and active participation of a large and influential delegation from America. Besides, the Congress was being held in the holiday, or vacation, season, and gratuitous transportation was promised to all duly accredited delegates from the Russian frontier to Moscow and St. Petersburg and return. Of English-speaking nations it was naturally expected that England would take the lead, because of its geographic position and front rank in medical science, but this year the British Medical Association assembled in Canada, and for certain political reasons, it appears, Russia was indifferent to English patronage, and hence it was only at a late date that the managers of the Congress consented to recognize English as one of the official languages.

As the time for the Congress approached it was clearly evident that neither England nor America would

cut a figure in the way of numbers. Our local committee on management had been quite entirely ignored until it was too late to provide delegates with their necessary credentials and transportation. Mexico, Central and South America were well provided for, but the United States had been quite entirely overlooked. Further and urgent appeals from Americans, with few exceptions, in London, Paris and Vienna generally met the same fate. Native American physicians are but indifferent linguists, and the Slavonic language possesses no affinity whatever to English, French or German. The police regulations in Russia strike the stranger as oppressive and tyrannous. All these circumstances combined to awaken a sense of apprehension and distrust among the English-speaking delegation on their way to the far East, with a result that but few attended the Congress.

But there were several who were not to be deterred by trifles and pressed on to the frontier, the writer among the number, entering Russia by way of Prussian Poland.

Reaching Thoru at 5 A. M., there was a delay of seven hours before a train left for Alexandrovo. At 4 P. M. the Russian frontier was crossed, when the order came for passports and the customs officials went through the baggage.

Finally the promised land was reached, when our eyes were opened

to a full realization that our misgivings were not altogether ill-founded.

The promised "committee of Russian physicians who could speak English, French and German, who would welcome the delegates and provide for their needs, etc.," were not in evidence, nor indeed a physician of any description, and though yet only on the Polish frontier it was clearly evident that one was, as it were, in a new world.

The language, the dress and general appearance of the people seemed so unlike any European cast we meet with in America, owing to the fact that, except the Hebrews, few Russians emigrate. As there had been a very large number of the delegates entering by this portal to Russia on the preceding days there was but miserable accommodation on the antiquated coaches which had been drafted into service. At Warsaw, through some oversight or neglect, the writer's passport was not forthcoming, and he was held by the gendarmes until another train arrived with it, six hours later. This misadventure entailed the missing of the Moscow express and a day's loss of time through the tedious and slow pace of a mixed train.

Leaving Warsaw late in the night we awoke in the morning to fully realize that the main peninsula of Europe was passed and that the vast Slavonic nation on its far East and extending into Asia, was being approached. The lofty average stature of the Russian, the heavy, swarthy features, the long beard and bronzed visage stamp him with a distinct individuality, nearer approached by the Teuton than any of the European races.

Entering Moscow one realized about the same disappointment as in Rome at the last Congress.

Committees on reception, it is true, there were, but they sat only a few hours in the day. On these committees were several who had a good knowledge of French and some German, but their English was quite incomprehensible.

It was intended that these committees were to provide hotels, but all the hotels were overcrowded before the Congress opened, and the

demand on lodgings, where no word of any language was known except Russian, offered but a comfortless prospect to the stranger, and, besides, at this stage extortionate rates were demanded, which might have been very well with those carried over a thousand miles free transport, but was by no means relished by those who had met all their own expenses.

In two or three respects the Congress was certainly a notable success—first, in point of numbers, for probably more than 10,000 registered. The sovereign or the ten roubles opened the portals for anyone, from anywhere, medical or not. The consequence was that the jam, with the intense tropic heat of the day, was too much for the timid and non-acclimatized from the West, and hence before the second day's session opened more than a thousand delegates had stampeded out of Moscow for their homes.

In the bringing together and mingling of about all the civilized races of the world, especially from the East, India, China, Japan, the English, French and Dutch Colonies, this assembly furnished a most extraordinary exhibition, for there was a perfect babel of tongues when the widely separated nations discoursed in their own language.

One redeeming and conspicuous feature, which overshadowed all others, was the unbounded and unrivaled hospitality of the Russian profession and citizens. Receptions, dinners and excursions began with the Congress, and in all truth it may be said that the voyageurs gave these more of their time than the section meetings, where the confusion of tongues, the oppressive heat and slim attendance offered but little attraction.

On the first day the Congress was formally opened by the Grand Duke Serge Alexandrovitch, as representing the Emperor. On each successive day general meetings were held in the Grand Opera House, where the addresses were made by the selected delegates of different nations.

Naturally the great attraction for English surgeons was the masterly

address of Dr. Nicholas Senn, of Chicago. Then came Sir Dyce Duckworth with an address of great interest and importance on "Cases of Cerebral Diseases in which Respiration Ceases Some Hours Before the Circulation."

Other addresses of a notable character were presented by Lambrosa, on "The Influence of Climate on Anthropologic Characteristics;" Gilbert and Grawitz, on "The Causes of Chlorosis;" Leyden, of Berlin, on "The Contemporaneous Methods of Treating Tuberculosis;" Klifosorski, on "The Inertia of the Cell Nuclei."

As an evidence of the unpopularity of the English we may cite Sir William McCormick, who made the closing address at the last general meeting in the French language.

The next Congress is to be held in Paris in 1900, with Professor Lannelongue as president.

A somewhat unexpected difficulty

came in getting out of Russia, passing the police, fulfilling the requirements prescribed by the laws of a despotic government and providing a possible means of egress over the railways.

There were no sleeping cars, except for those who paid a regular fare, whether they had a free transportation or not.

But most congressionalists were glad to leave the frontier at any cost, and eagerly seized on any means of escaping "Siberia."

In estimating the net result of the Congress it may be regarded as fully equal to any of its predecessors.

National and religious prejudices for the first time cropped out in a great scientific body, and finally, when the time arrived for opening the exercises it added greatly to the confusion attendant on the organization and conduct of the vast assembly of practitioners. T. H. M.

OBSTETRICAL SOCIETY OF CINCINNATI.

OFFICIAL REPORT.

Meeting of April 8, 1897.

THE PRESIDENT, C. L. BONIFIELD, M. D., IN THE CHAIR.

E. S. McKEE, M. D., SECRETARY.

DISCUSSION ON THE USE OF THE PESSARY, ETC., IN DISPLACEMENTS.

Dr. George E. Jones—Naturally, as anatomists and surgeons, we look for a more tangible method of correcting the various displacements of the uterus than the many so-called supports—often the contrivances of those who do not appreciate the one great fact that they must be made to fit in accordance with a true anatomical knowledge of the parts. A few, and only a few, of the thousand and one pessaries that are thrown on the market can justly claim recognition from the gynecologist; they may for a time do very well, but as a rule too much has been expected from their use. Ulceration, sometimes of a

malignant character, has been the result, and we might just as well say cancer, as cancer has been supposed by several authorities in some instances to be the product of a continuous irritation of a part. It is to be hoped the time will come when, except in rare instances, the pessary will become a thing of the past.

Time and again have directions and experiments been made on the cadaver, and of such a nature that it seems very strange the shortening of the round ligaments was not successfully demonstrated on the living woman until 1881. The idea is not of recent origin. It was first demonstrated in 1840, and reported to the French Academy. It was strongly condemned, and at the same time

the surgeon was complimented for his prudence in not attempting the operation on the living woman.

Dissection proved the feasibility of the operation beyond all cavil to be a success, and why some surgeons, known to be bold unto recklessness, should have permitted the many opportunities to go by without demonstration on the living woman is something of a mystery.

Deneffe made the attempt on the living woman, but failed to find the cord. This master was severely reprimanded for permitting experiments on patients under his care.

Adams taught and demonstrated the operation to his students, but when he made the operation on the living woman failed because of adhesions.

Then Dr. William Alexander has admitted that "the operation was originally devised to get rid of the swarm of patients with uterine displacements that infested the gynecological wards of the Liverpool Workhouse;" had it not been for this fit of desperation, the honor would have fallen on some other surgeon at a later date. It proved one fact, Dr. Alexander was a good, practical anatomist and took advantage of the broad limits that had been given to the profession at large, although it has been stated that he never knew of the several attempts, either by dissection or the operation on the living woman. Dr. Alexander gave minute directions how to make the operation. Several attempted but failed, and because of their failure, like the French Academy, condemned the operation. This called forth a rebuke from Alexander, giving them to understand they were not conversant with their anatomy, hence their failure.

Unfortunately some writers have stated that the operation for shortening the round ligaments is an easy one, neither difficult nor dangerous. I think I am right in saying this is not the case, even to the accomplished anatomist and surgeon. Care, and in some instances great care, and skill are absolutely necessary; it is an operation not to be hurried.

Dr. Kellogg says: "The impression

that this operation is both difficult and dangerous is erroneous in both particulars." This might be considered a sweeping declaration were it not that he qualifies it by saying "not difficult when one has made himself familiar with the anatomy of the parts and does his work carefully and with ample patience."

The several works on anatomy say comparatively little on the round ligament. No two authors are alike, and they who have made many operations have come to the conclusion that the round ligament requires more than a passing notice. It has an individuality heretofore unknown; it ranks higher than a common ligament.

"Quain's Anatomy" says: "The round ligaments are two flat, or two round, cord-like bundles of fibres, about four or five inches long, attached to the upper angles of the uterus, one on either side immediately in front of the Fallopian tubes. From this point each ligament proceeds upward, outward and forward to gain the internal ring, and, having passed like the spermatic cord in the male through the inguinal canal, reaches the part of the pubic symphysis where its fibres expand and become united with and lost in the *mons veneris*."

In making the Alexander operation we have something more than a fibrous ligament to deal with, although classed as a ligament, it is not a true ligament in structure. It is composed of striated muscular fibre, smooth, muscular fibre, areola tissue, artery, veins, nerves and, can I venture to say, lymphatics, and a sheath or covering of peritoneum reaching to the outer ring, and sometimes beyond it. It does not take on the silvery, glistening appearance as seen in true ligament, but often of a grayish color, sometimes fleshy in character. It sympathizes with the several conditions of the uterus, especially during menstruation and pregnancy. The veins of the cord have been known to become enlarged and varicose, simulating hernia.

It is scarcely necessary to state that the rules for cleanliness would be the same in this operation as in

a laparotomy. Good warm bath with free use of flesh brush; then rinse off with sterilized water. Just before the operation shave the mons veneris, and again bathe with the sponge with a solution of hydrargyri bichloridi, 1 to 4000. It makes no difference whether you stand at the side or between the thighs of the patient; take the position that will give you full control of the field of operation.

Briefly will I give a description of the operation in Dr. Kellogg's own language, which is terse and to the point, as suggested by Dr. Alexander: "Make a short incision, rarely an inch in length, parallel with Poupart's ligament. I have adopted Dr. Alexander's later suggestion in opening the canal at a point above the external ring. Make a short incision, nearly an inch in length, parallel with Poupart's ligament, and at such a point as to enable me to open the canal by division of the inter-columnar fascia at a point above one inch below the internal ring. In dividing the inter-columnar fascia it is necessary to make only a slight puncture with the end of the scalpel. I then make the wound gap with a strabismus hook, and, introducing another hook, draw out the round ligament. The ligament at this point is easily found and enucleated from its investing fascia. I draw out both ligaments as far as possible, and secure in the usual manner with a silver wire and carbolized silk suture. The layers of fascia divided in this operation are carefully approximated by a continuous suture of fine catgut, the skin closed in the same manner and the wound dressed antiseptically."

Dr. Kellogg claims many advantages in this operation over the older methods, viz., "the ligaments are always present, easily secured, sufficiently large, can be drawn down with less risk of breakage of the tissues, seldom necessary to cut off the distal end of ligaments, and immediate union can be secured in any case."

Dr. A. W. Johnstone—I have seen about a dozen cases cured absolutely by the curette alone. They were largely in young girls, where there

has been a catarrhal inflammation going on for some time, where the inflammation, the blood stasis and all has so extended to the general pelvis, and the round ligaments and the broad ligaments themselves were so soft, that a full bladder or anything of that kind would cause the uterus to be thrown out of position.

The first case I saw was mistaken for a fibroid, but I found it to be only a displacement of the uterus. The uterus was simply an old pus-pocket that needed cleaning out like any other retention pocket, and there was in addition in this case a peritonitis. To my surprise and great pleasure, within two months after curetting, without a pessary being used, that uterus backed itself around to its normal position. The inflammation was absolutely cured, and the only way I could account for it was that by getting rid of this edema the natural supports of the uterus had shortened up and pulled the uterus into position.

Since then I have been watching cases of curetting, and I have come to look on versions as very largely complications of old cases of metritis. It is true, I know, the unusual Alexander operations have shown that some cases never have the round ligament properly placed. Like the undescended testicle, the end of the round ligament seems to wander up along the inside of the abdominal wall and does not get its proper attachments and does not take up its slack. There may be a few cases of congenital retro-position. And then I have seen a few cases that I am sure were caused by trauma. In one case a young woman was thrown off a horse and, after turning a double somersault, lit on her feet and suffered afterward with retroversion. Another one was a girl who rode a bucking horse and was taken off the horse with a retroversion, and it remained until afterward, when she was curetted. She, by the way, also had a chronic metritis.

I tell you of these cases to give you my ideas of what versions really are. The organ, by chronic inflammation, has gotten its supports weakened, and then by any accident

like these the version may be caused, and if it is thrown back and held there long enough these ligaments will be permanently lengthened. I have looked up the statistics, and I suppose about 20 per cent., not more than that, taking the cases as they come, of these old versions with chronic metritis are cured by the curette and holding the uterus in its proper position for one or two or three years with a pessary. There are a great many others who are made perfectly comfortable as long as the pessary is worn, and who are perfectly satisfied to get along with it. Unless there has been some pelvic inflammation or some firm adhesions on which the uterus rides, I believe the patients could wear a pessary for some time. But you must be very careful. I remember a lady from across the waters who had some version and a French surgeon had placed a pessary, and when she came to me it was a question whether her ovaries should not come out. There was a decided swelling on the right of the uterus, probably of the ovary or tube. I found above the insertion of the uterus, in the posterior part of the vagina, a lump which I took for a fibroid. On inquiry she told me she had had a cyst taken out and this pessary was placed so as to rest around the scar of the cyst. I took the pessary out and let her go for a few weeks. You would be surprised to see how quickly and rapidly all the boggyiness about the pelvis disappeared and how quickly and promptly the case got almost well, showing no pessary was required. There was one case in which the pessary did a great deal of harm.

Many of these cases have had bad appendages, and it is all right to curette these cases, but bad practice to put in a pessary, particularly if the pessary will rest on the appendages in any way. So that in that class of cases, where there has been more or less occlusion of the tube or adhesions, or where the fire has already rushed through, the pessary should be kept out. It is only in the class of cases where the uterus comes up freely and there is no ovary or tube that the pessary can possibly rest upon that I would ever

advise it to be used. But, unfortunately, quite a number of cases will have complications, while if the pessary had been used at the right time these might have been avoided, but it has gone beyond that until the patient has had pelvis attacks which have glued everything together. What is to be done there depends on the circumstances, financially, of the patient and the amount of trouble given. Take, for instance, a wealthy woman with adhesions and a retroversion with a chronic metritis—I have several on my hands now—you curette the uterus and get rid of the original source of trouble; even though there are adhesions there those ladies will be able to attend to the social duties and take long trips to Europe, and here and there and everywhere. They will have attacks now and then, but most of them you will find refuse any kind of operative procedure. And you must remember that this thing of breaking up the adhesions, while it looks very pretty on paper, still it is about the same as the operation for taking out the appendages, and unless it is a threat to the woman's life or to her usefulness as a citizen, I think we had better let well enough alone. Where the uterus is easily put up, I put in a pessary. Where the adhesions are not very great and do not give much pain, if the patient is up and about and able to go back to her position as a citizen and all that, I think we are wrong to urge an operation; but if there has been an accumulation in the tubes or the ovaries, or if the adhesions give a great deal of pain, then it is time to think of operation for correcting the position of the uterus. But in that class of cases I think we operate more for the appendages than we do for the uterus itself.

Now for the mechanical means of fixing the uterus. The one that has appealed to me, and the one I like best of all, is the Alexander operation. It is simply carrying out nature's method, assisting nature by shortening her natural support. I am glad to say I saw the first case I ever did two weeks ago. It was done three years ago. The woman

is very comfortable, has gained in weight, and the uterus is in its proper position. The girl in that case was very uncomfortable before the operation, and it has proven, to my judgment, that it is the one of all others I would want to do. As for the fixation of the uterus to the abdominal wall, I did not hear the previous discussion, and of course will have to go on what my studies have been. I have nothing for this but condemnation; I never liked it, and I see the more experience the world in general is having with it the less they are having to do with it. Like every other fad, it has run its course and is dying out.

Now, as for the method of doing the Alexander operation. This operation is not a hard one, but comparatively easy. Particularly I like the idea of opening the lower end of the canal itself. Even though there was in that case a large sheath of peritoneum pulled down, still it is, compared with laparotomy, mere child's play. I don't know but Martin's idea of taking both and tying them under the skin is about as sensible as any. Then you do not leave buried ligatures and run less danger of sepsis.

As for vaginal fixation, I do not like it, and if pregnancy goes on we may have disastrous results. There is another way of shortening the round ligaments, spoken of by Polk, of New York, which has struck me as reasonable because it gives an opportunity for breaking up the adhesions, which the Alexander operation does not. That is to go down between the uterus and the bladder and stitch the round ligaments together. In the two cases in which this was done the operator attempted to bring the uterus forward and fasten it. Whether it was an irritating catgut ligature or what I do not know, but I know I had to make her many visits for a boggy, thick, hard, indurated swelling that seemed to be general. It left the whole pelvic condition worse than he found it, and if the patient had not been at or past the change of life we would have had considerable trouble, for there surely would have been an abscess.

So, as I find it in my private work, having no hospital appointment and not seeing the laboring classes so much, my experience is that these operative fixations of the uterus are comparatively rarely needed. It is not often they are required. In the working classes you do need them a good deal, probably, but in my experience it is rare you have to operate for malposition, and that you can correct it in a much simpler way than by doing any of these operations, unless it be the Alexander operation, which is a comparatively easy affair. But when we do a laparotomy we may fasten the uterus forward, and the way that is best done, I believe, is just to get in behind the round ligament and double it up in a knuckle and leave it there. But that does not act in all cases. But the shrinkage of the fibres is often satisfactory.

Dr. W. H. Wenning—I spoke at some length last evening on the subject of pessaries, but it occurred to me while Dr. Johnstone was speaking that in some cases of acute retroversion particular attention must be paid to the immediate case of retroversion in the form of establishing a correct condition. Most of the cases we meet, of course, have existed for a long time, but there is such a thing as acute displacement of the uterus. A young lady in one of the suburbs, whilst romping, fell over a chair and hurt her side. She screamed with pain. The first thing the physician did was to give her a hypodermic injection of morphine, which relieved her over night. The next morning the pain returned and he made another hypodermic injection, and so on for weeks and weeks. The patient became worse and worse and became thoroughly debilitated and a morphine debauchee. They finally brought her to St. Mary's Hospital, thinking if she did not get well she might as well die there as anywhere else. I found, on examination, the uterus was retroverted, the fundus dipping almost down to the sacrum and firmly adherent. I began the treatment by massage and daily introduction of tampons in a Sims, or knee-elbow position, and

finally succeeded in righting the position of the uterus. The patient expressed relief at once from that time on. But the hardest thing to get rid of was the morphine habit. The body was covered from head to foot with sores, probably due to the use of a dirty needle. She told me when one particular portion of the body was peppered as much as possible another would be used. After a few months, when she got over the morphine habit, she so improved that her friends hardly knew her. This case impressed me that in every case, no matter how young, an examination ought to be made.

Dr. Rufus B. Hall—I was very much interested in the remarks of Dr. Johnstone and the sanguine manner in which he says he cures 20 per cent. of these old chronic cases by curettage. That is about 19.9 per cent. more than I have ever been able to cure.

Dr. Johnstone—Evidently the gentleman was not listening. I said most of them were in young girls; they could not be very chronic.

Dr. Hall—I stand corrected, but I understood the doctor to say in young girls of long standing. I will grant we have better results in young girls, but in the old chronic cases I have not had very satisfactory results in curing them with the curette.

Vaginal fixation for retroversion I discussed at the last meeting, and I will not refer to it here. But I will refer to Dr. Jones' paper. I believe the Alexander operation has had its best days. I believe, as expressed by one of the speakers tonight, we have fads in the profession, not only in medicine, but in surgery, and I believe the fad of the Alexander operation is passing. It does relieve the retroversion. It is an ideal operation in many respects, but in very many instances the patient is worse off with a retroversion cured with a pair of hernias than she was before, and this cannot be gainsaid by anybody. Even Edebohls will have his hernia all right, and so will anybody who opens up these canals, especially in fleshy subjects. I have gotten tired of jumping out of the frying pan into the fire. It is very

unpleasant to operate on a retroversion and have the patient come back to have the hernia cured, and then return the next year to have the hernia cured again. I believe we are asked for relief by the working class because they are obliged to be on their feet and need relief more, while the society person may be made more bearable without operation. But occasionally even wealthy people will ask for relief from great pain. Some people suffer much more than others from a retroverted uterus. Why this is true it is difficult to explain.

Dr. Giles S. Mitchell—I will not take up any of the time of the society, for at the last meeting I spoke on the question.

I am surprised that the speaker of the evening has had such a large experience with retroversion in young girls. Nearly all the retroversions that have come under my observation occurred in multiparae, women who have borne children, women who have had cervical tears and perineal lacerations. Of course, I can appreciate how cases can occur in virgins from great violence, such as has been related by the speaker. But it seems to me this malposition is comparatively rare in virgins. I can also readily appreciate the value of curettage, but not to the extent of curing an ordinary retroversion. Of course this is part of the treatment.

Now, as to the Alexander operation. I simply want to emphasize what I said at the last meeting. I am quite sure this is the ideal operation; this is the operation which is most feasible, sensible and scientific, and this is the operation which will last. I am astonished at the gentleman who said this operation is passing away. The Kelly operation has been found fault with of late, and it is an operation which will be done less and less, and for good reasons. And the Mackenroth operation, also, I am quite sure will be done much less frequently by the gentleman the next year. If we are to take the statements of such men as Kellogg and Edebohls, who have had very few cases of hernia, when a man operates a thousand times and has very few hernias it seems to me the

danger from this source is comparatively slight. There is no question Kellogg is a credible witness. Edebohls quotes him in his recent article, and gentlemen have gone there to see him, and I have no doubt his statements are correct. If the operation is done after the method of Kellogg, as quoted by Dr. Jones, or after the method of Edebohls, or any of the approved plans, hernia ought to occur very seldom. It seems to me, from the statements I have read, the greatest danger is from rupture of the round ligament itself. Of course, no man would think of trying to repose the uterus where there were numerous adhesions until the adhesions were gotten rid of, and they are gotten rid of by a long plan of treatment, such as vaginal suppositories of glycerine. And I am very sure the Alexander operation is the one we will all be championing in the next 15 or 20 years.

Dr. C. L. Bonifield—I, like most of the other gentlemen, spoke on this subject at the last meeting. I now merely want to refer to one or two things. My experience is not like that of Dr. Johnstone's in regard to breaking the adhesions. If a case comes to me with a uterus retroflexed or retroverted (they are usually retroflexed), if the adhesions are very extensive and under an anesthetic I cannot discover any disease, I do not hesitate to break up the adhesions by the Schultz method. The fact the doctor speaks of is undoubtedly true, that hospital cases, cases of working girls, etc., are those that most imperatively demand operative procedure, just as a man doing light work may get along with a truss, but a street laborer has a pretty hard time, so a person in moderate circumstances may get along with a pessary, but the girl who works, as with a sewing machine, must have the condition relieved. I thoroughly agree with Dr. Johnstone in curetting these cases. I am not prepared to say whether it is 20 per cent. or more that I have cured with the curette and other means. The use of the curette is the first step and one of the most important ones.

Dr. Edwin Ricketts—In regard to

the use of pessaries, I do not want to go over that ground; you know my views. As to the operation of Alexander, the men abroad, who are associated with him, are the ones to throw this operation down. The leading men doing gynecological work, who knew of the Alexander operation when it first came forward, are the ones that say, as has been said here to-night, that it is not the operation to be preferred, except in a very few cases. And as to the gentleman on the left making the assertion that the operation of Vineberg is being relegated to the past, I beg to differ from him. I would beg to ask the gentleman if he has ever seen the operation done.

Dr. Mitchell—I never have.

Dr. Ricketts—Then I do not think that is a fair criticism to make. The cases I have seen operated upon, while it is as yet too soon to pass final judgment, I want to say that they are simply superb in character. I don't care who may denounce it, I have myself seen very good results of the work. We know the retroflexions give us the greatest trouble and we all know foreign bodies in any part of the body can give a great deal of trouble, and, as stated by Dr. Jones, a pessary can be the cause even of cancer. And in the operation of Vineberg you do not have the danger of hernia as you do even in the operation of Alexander itself.

Dr. Mitchell—The reason I have not felt that the operation would stand is because of the various criticisms made. The men who have followed the operation have abandoned it. It seems to me the operation should be abandoned.

Dr. Hall—I would remind the gentleman that the cases he refers to are not those made by the Vineberg operation at all, but those in which the uterus was stitched to the vaginal wall, and not fixed by the round ligaments, as in the Vineberg operation.

Dr. Johnstone—I am a little surprised to learn from some of the speakers that they do not see any retroversions in young girls. I think I see almost as many in them as in others. I have two on hand now, one aged 16 years and the other 22.

You have no idea how common this is unless you happen to have a run of those girls. The finding of a retroversion in that class of cases, I believe, is the saving of a life-long trouble, because you can cure that class of cases much more easily than you can in the multiparae.

As for the vaginal fixation, I would like to ask if any of the gentlemen have had a sort of cellulitis after the operation, a persistence of the inflammation around the scar, that comes and goes with each little attack of cold and makes the whole vagina hard. I want to know if that is an unique experience.

Dr. Hall—I have not had any like experience; it is a new case to me.

Dr. Johnstone—I would like to just detail a case I had once. It appeared as if it would be a hard case, but to my surprise I found not a single adhesion, but the broad ligaments were shortened up in a peculiar way. In those days I was, perhaps, more daring than I am now, and I pulled the uterus up and found it to fall backwards. And I have often thought when you get hold of a uterus you cannot tell whether it is fixed to the vagina or not; these

appendages may twist the uterus back and hold it there, so it is a deceptive condition.

Dr. Bonifield—In regard to the adhesions, that is very true. Often-times the uterus is sharply retroflexed, but in those cases, if one is sufficiently skillful, if he will carry two fingers in the vagina, even with the patient on the back, if the abdomen is tolerably lax, he can throw the uterus back, or possibly it may be necessary to turn the patient on the back, but it requires considerable force. The adhesions I speak of you can feel, and you can feel them give way. You cannot put the uterus in position until you have pulled it down with a vulsellum and done away with the adhesions, and then you can replace the uterus. In those cases, of course, you cannot always tell whether the appendages are diseased or not, and if I had any doubt I certainly would not resort to this method. When we fix the uterus forward we simply substitute one pathological condition for another, and it certainly will require one or two years before we can determine the value of the procedure.





Editorial

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MODERN FRACTURE TREATMENT.

Quackery thrives, grows and, in spite of our boasted scientific progress from year to year becomes more deeply rooted in the public confidence, and not alone among the rag-tag of the alley, either, but the most prominent and cultivated classes of society as well.

A missionary from China lately informed the writer that among all classes in the Chinese empire, foreign as well as native, there was no physician in greater demand than the Mandarin in the treatment of typhoid fever, who employed nothing in any case except occipuncture, as his recoveries were the promptest and his mortalities the least.

How well we remember in our student days the earnest, emphatic admonition of our teacher in surgery that we must treat a fracture on cer-

tain definite "principles." The shatous.

In France and Germany now the usual course is, for fractures of the lower extremity, to apply a mechanical adjustment, easy of removal, and put the patient on terra firma at once, or no later than 24 hours, and apply friction over the fragments and move the joints daily.

There can be no doubt but in many fractures of the limbs attended with slight or no deformity it would be better if little or no dressings of any kind were employed, if the patient were put on crutches and joint motion commenced early.

But the practice of applying this plan to all fractures is certainly a great mistake. The trouble will come in adopting it in private practice, for it should always be remembered

tered bone "must be placed at rest and immobilized." But now, in a few years, before the frosts of time have yet bleached our hair, these "principles" are being denounced and repudiated as false and dangerous—that in fracture treatment that that which may be permitted in hospitals must often be modified outside, and the evil comes through the average reader taking for granted as orthodox plans of treatment often based quite entirely on hospital experience.

In all but exceptional cases the safest and most effective course will be the intermediate, viz., wait until the sanguinous extravasation has been resected, inflammatory exudates have disappeared and a provisional callus is formed before we insist on locomotion or vigorous joint action

and liberation of the muscles.

The exceptional cases, in which it is often imperative to put our patient in the upright attitude, with the limb pendulous, are in cases of retarded union or in fleshy, heavy subjects, suffering from femoral fracture, in whom protracted confinement to bed is attended with danger to life.

The fact is, there are no immutable principles governing fracture therapy, but every case must be managed on such a rational plan as is required by each individual case.

Thus we stand "between the devil and the deep sea," liable to malpractice suits if we move our patient out early, and quite certain of being mulcted if a deformity ensues through ignoring "principles."

HONORING THE MEMORY OF A NOTED PHYSICIAN.

It is indeed a source of gratification to learn of the magnificent tribute which the city of Rahway, New Jersey, has recently paid to the memory of the late Dr. John J. Daily, who was born, bred and who passed his last hours in that quaint old city.

Some few there are in the ranks of the profession who attain to wealth and fame, but it rarely falls to the lot of any member of our craft to enjoy the love and confidence of all citizens in life and be generously and gratefully remembered after death, as was Dr. Daily.

Dr. Daily was a student of the well-known Abernethy, distinguished in his time as a surgeon of advanced rank throughout the State. It was therefore to be expected that Daly would incline to that branch of the healing art, which he pursued with singular success, performing with rare skill many of the most difficult operations in surgery.

Dr. Daily was actively identified with the municipal affairs of Rahway and occupied all the positions of trust in the gift of his fellow-citizens, from member of the Council to Mayor of the city, which position he held at the time of his death. Though having a very large practice among all classes the doctor accumulated but little, as he was an indifferent collector and never refused a call in the absence of a fee.

After the doctor's death a subscription was opened in Rahway with a view to raising a monument over the resting place of the beloved physician. In a very short time the sum of \$2300 was collected and on April 17, 1897, just one year after his death, the monument was unveiled.

This superb granite shaft is unquestionably the most substantial, artistic and enduring tribute ever raised by the voluntary contributions of a physician's patients and

friends. It certainly has no counterpart in America, and well and worthily has it been bestowed, for Dr. Daily was one of nature's noblemen. Honest, fearless and generous, he had no enemies among his professional associates. As a practitioner, scrupulous, diligent and painstaking, his sympathies and his money were ever ready when the necessities of the poor or unfortunate appealed to him.

The action of the citizens of Rahway amply testifies to his lofty character and noble traits, dying in the prime of life—under 45 years of age

—and yet eternally endeared to all who knew him.

It was the good fortune of the writer to be numbered among his friends, and a more superb example of the ideal physician he never knew; a man of lofty principles, enthusiastically devoted to his chosen profession, of the real old stock, who would cheerfully sacrifice life rather than barter away honor; one, indeed, too good, too pure and kind-hearted for the duplicity, corruption and evil of the world, and who, let us hope, is now reaping the reward of a life well spent.



ROENTGEN RAY SKIAGRAPHY.

BY DE FOREST WILLARD, M. D.,

Philadelphia, Pa.

Professor Goodspeed has very properly emphasized the importance of the study of normal living anatomic delineations. Even surgeons are not familiar with the appearance of the living skeleton in situ, and for accurate comparison we assuredly require a series of skiagraphic normals.

I was in my first efforts greatly puzzled in the interpretation of conditions either plainly or indistinctly seen in the skiagraph, and even after considerable experience am obliged to study with great care each representation in order to differentiate the abnormal from the normal conditions.

Although skiagraphy is a most valuable assistant to the surgeon, yet

a word of caution is necessary. It has been most conclusively shown that the position of the tube, the direction of the rays, the method and time of exposure, the magnification of portions of an object not in contact with the plate, the elongation of shadows from distant portions of an object, together with other varied conditions, may so completely distort the resultant image that error is certainly possible. A fracture may appear to exist when a bone has not been broken, and on the other hand it has been shown that a known fracture produced by osteotomy is not discoverable. These facts make it imperative that the medico-legal value of these radiographs should be considered carefully, and

pictorial evidence should receive only its due amount of consideration in connection with clinical evidence. Clinical evidence should have, and does have, large weight in the question as to results after fracture or other injury. Knowledge obtained by long experience and positive indications is far more valuable than any representation visible alone to the eye. A familiar example of this is seen in photography, an art which has obtained through many years a stage of great perfection, and yet representations taken by the same artist upon the same day of the same individual will yield results almost absolutely dissimilar; therefore, in suits for malpractice, while these skiagraphs may be useful, a single view is not indisputable evidence. The alleged deformity should be shown from a number of different points of observation and comparison should be made with normal anatomic conditions. Recent callus is translucent to the rays and may appear falsely as a non-union. Not only should the skiagraph be absolutely identified, but all of the well-established rules of evidence should be rigidly followed.

Again, a simple deformity which does not interfere with function may not be of serious importance, and we have no right in the present state of our knowledge to compel a surgeon to secure results which were very probably unattainable under the conditions resulting from the particular form of injury or from environment. Valuable as skiagraphy is as an assistant to a surgeon, it is still a young science and its indications must be carefully and thoroughly considered in connection with clinical symptoms. A skiagraph is but one of a number of elements which will greatly assist a surgeon in arriving at a proper diagnosis and in the determination of the treatment to be employed.

FRACTURES AND DISLOCATIONS.

The importance of skiagraphy, particularly in fractures near the joints, is well illustrated by representations (shown on screen) which exhibit the difficulties in reduction and in retention of fragments.

For demonstrating fractures in the upper extremities the process is especially useful, and in hospitals where the patient can be taken to the scotoscopic room, the lower limb can also be readily skiaghaphed. Doubtless an apparatus capable of transportation will soon be devised.

The progress of union in fractures can be steadily watched, as the rays readily penetrate bandages, silicate of soda and even plaster of paris, although the latter contains lime. In non-union and in mal-union most valuable information can be elicited. In suspected dislocations where the local injury is great and the swelling considerable the advantages of this process are self-evident, and the necessity or non-necessity of operative interference is demonstrable.

In the present state of our knowledge, and with our well-established clinical facilities for diagnosis, the securing of such delineation, while very desirable, should not be considered an essential procedure, although frequently of great advantage.

In the difficulties surrounding injuries about the elbow-joint the assistance of anesthetics and the use of the rays will greatly simplify the problem.

The delineations of the thicker portions of the body are still only moderately clear, yet even fractures and dislocations of the vertebral bones, pelvis, etc., are recognizable.

In the skull the opportunities for misrepresentation are greater, but the difficulties will in time be overcome and the deadly and often undiscoverable fracture at the base may yet be made plain to our vision.

FOREIGN BODIES.

The detection of foreign bodies in the tissues is frequently a work of ease. Their location and depth are obtainable by pictures taken at different angles or by the device of comparative definition, such as has been shown by Professor Goodspeed.

The locating of needles is still a problem (even though they are plainly visible in a skiagraph) since they are perfectly capable of being transferred from one position to another after the taking of the picture, and

their habit of concealing themselves within the sheath of the tendons or of sliding in the tissues is well known. Many surgeons have missed a needle when it has been present in the direct area of operation. By taking views from different angles the relation to hard and soft parts can be determined with decided accuracy. Scott has proposed to take two pictures on different parts of the same plate; one end of the plate being covered with sheet lead while the other end is subjected to the rays; after which a second picture is taken on the other end of the sensitive plate without moving plate or tube. The varying angles of the object can thus be clinically determined or can be geometrically figured with accuracy (*American X-Ray Journal*, Vol. 1, No. 2, June, 1897, p. 41).

Two or three pictures taken at different angles by tubes connected in series, will also give mathematical triangles for exact information.

Foreign bodies in the brain, esophagus and thoracic or abdominal cavities can often be thoroughly outlined, and by a series of rays even their depth may be located. With the fluoroscope, also, a surgeon may, during operation, especially in the esophagus, stomach or bronchi, bring to his help the immediate use of the rays and view and guide his instruments during manipulation.

A discouraging fact in the delineation of foreign bodies in the abdomen has been shown by Professor Goodspeed in the case of the so-called "man ostrich," who had swallowed a large number of metal articles, belts, knives, etc., just previous to the application of the X-rays, yet only a darkened area was visible, without any definite outline of the articles.

Drainage tubes lost in the thoracic cavity are sometimes non-demonstrable, but after skilled adaptation of time of exposure are visible.

The placing of lead or other reference marks upon the surface to fix the location during skiagraphy is often of advantage in ascertaining distance from the surface. The process is also useful in locating the position of a collapsed lung in empyema and after thoracotomy, and

the rapidity of expansion is not only interesting, but an important addition to our knowledge.

BONE DISEASE.

The importance of the process in locating bone abscess, periosteal thickening, osseous growths, exostoses, etc., is undoubted and much information can be obtained, not only in regard to the shape, attachment, position, etc., but the question of treatment may be materially influenced.

JOINT DISEASE.

In joint disease, not only of minor articulations, but in the larger joints, as the hip and knee, most important results are obtainable. Joint erosion of cartilage, destruction of the bone, etc., are as nearly visible to the eye as if the joint itself had been opened by the knife, and the question of excision, erosion, amputation or non-interference may be facilitated. Whether a joint should be allowed to remain ankylosed, or whether it will be safe to attempt restoration of motion can be very accurately decided by this process, as I have previously exhibited (*Trans. Amer. Surg. Assn.*, 1896).

In hip diseases the non-existence of the head and neck of the bone, and the position and condition of the upper extremity of the femur can be readily determined. Old dislocations and fractures of the neck of the femur can be also shown with advantage.

In caries of the vertebra not only can the diseased area be located, but the outlines of the resulting abscess can be determined by withdrawing the pus and filling the cavity with iodoform emulsion, which will outline the thickened and darkened sides of the abscess cavity. In hip abscesses the same maneuver can be practiced.

In ankylosis of the shoulder great assistance can be gained by the simple representation. Osseous projections, nodules, callosities, etc., interfering with the restoration of the joint motion are readily shown. The process is also helpful in periostitis,

in bone thickening and in demonstrating the cause of metatarsalgia. Epiphyseal separation can also be differentiated from dislocation.

In knock-knee, bow-legs, deficiencies of bone, irregularity of condyle growths, etc., the use of the process is invaluable.

In talipes the shape of the tarsal bones may be outlined and the form of operation decided upon (Williard, *Trans. Amer. Ortho. Assoc.*, 1896).

In the foot, deviations of all kinds from the normal standard are demonstrable with the greatest ease and accuracy, and the same may be said of the hand.

GALL AND BLADDER STONES.

Gall-stones, renal calculi, enteroliths, etc., while decidedly opaque to the X-rays are frequently not discoverable when in situ. Their detection will largely depend on the skill of the operator and his technique. We have many other things yet to learn in regard to outlining these ab-

normal bodies, but a few months will probably bring extended knowledge. The difficulties in the case of gall-stones are due to the fact that when surrounded by the medium of bile they are obscured. In renal calculi also close relation of the vertebral bodies and ribs may conceal the concretion. The different varieties of concretions require special care as to the time of exposure, etc. In the bladder the bones of the pelvis also obstruct the view, but by passing the rays in the direction of the axis of the pelvis this difficulty may be overcome, as has already been shown in several instances.

It is scarcely necessary for me to speak of the advantages of this process in regard to the more strictly medical conditions, such as aneurism, dislocation of the stomach, the condition of the viscera, subdiaphragmatic abscess, etc., or of its use in ophthalmology. Its employment is steadily advancing in importance.

—Journal of American Medical Asso.

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Clinical Medicine.

In charge of DR. J. J. MORRISSEY.

SOME PRACTICAL OBSERVATIONS ON PULMONARY TUBERCULOSIS.

J. J. MORRISSEY, A. M., M. D.,

Associate Professor of Practice, New York School of Medicine; Visiting Physician to St. Joseph's Hospital, New York.

The splendid results which have accrued within the past few years in the prevention of diseases chiefly depend upon the advances made in bacteriology. These advances, to a great extent, have not only revolutionized our ideas as to the propagation of many diseases whose pathological relations were in past years a terra incognita, but, more than that, they have demonstrated the proper remedies to be used in overcoming their ravages, and therefore this progress in bacteriological research has proven itself to be one of the most essentially conservative factors in prolonging the human race.

If we accurately understand the

causes of disease, scientific knowledge and deduction will in time invariably point out the means of eradication. To-day, more than ever, medicine is being reduced to the safe principles of a permanently scientific basis; to-day the physician is performing the highest function of his profession, not so much in striving with all the means which an enlightened scientific spirit has placed within his power to combat with and overcome disease, but, what is of higher value in the scale of humanity, to do his utmost to prevent its encroachment.

It is in the latter phase of his labors that the true physician demonstrates the nobility of his excellence

as a friend of mankind, for there is no other calling which destroys the ratio existing between the laborer and his wages as does the physician.

It stands as a matter of course that the greater the amount of sickness the greater the draught upon the patient's financial resources, to the consequent enrichment of the physician, but, undaunted by any sacrifices of that character, it is the proudest boast of the medical man—using the term in its broadest acceptance—that his best work is ever devoted toward preventing disease.

In this department of his self-sacrificing avocation there is one disease in particular which has commanded an unusual amount of attention, namely tuberculosis, or what is commonly termed consumption. When tuberculosis is mentioned it generally signifies that form of the disease which affects the lungs, though it must not be overlooked that the essential unity of the process is the same whether its battlefield is the lungs, the brain, the liver, the kidneys, or the intestines. The morphological characters and pathogenetic revelations of the bacillus tuberculosis are identical no matter what portion of anatomical territory it may invade. But when we speak of tuberculosis without restriction we mean an affection of the pulmonary tissue.

There appears to be no disease with which the public seems to be so thoroughly acquainted as with tuberculosis, and it is right that this ravager of the human race should maintain the conspicuous position it occupies in the medical world, for there is no disease which numbers among its victims so many to whom life, with all its youthful delights, is just opening. Young women, budding forth into womanhood, and the youth before whom life with its aspirations appears like a field of variegated flowers, full of beauty, color and fragrance—these are among its victims; not but that it also includes in its victorious conquests the aged and decrepit, but the form of the disease from which they suffer is mainly chronic and degenerative in character, and does not possess the acuteness and virulence

of that type which assails the young. There is no strata of society, no condition of life which appears peculiarly exempt, and many a post-mortem discloses a circumscribed tubercular infiltration whose presence during life was not suspected.

Is tuberculosis inherited? Scientific investigation has answered the interrogation in the negative, but that intangible something which we call predisposition is transmitted. "Latent susceptibility," "concealed diathesis" and other vague phrases are frequently used where scientific nomenclature has not given us more accurate terminology. However, there can be no question that in many lungs the bacillus tuberculosis finds a more favorable locality for multiplying than in others. Whether this be due to some peculiarity of structural formation or an inherent weakness it is difficult to affirm. The fact remains that this peculiar, infinitesimal organism rapidly influences, by the production of its toxins, the tissues of many individuals who are apparently in the most vigorous condition of health. This "latent susceptibility" is an unknown factor and therefore has not as yet been estimated at its true value. Hereditary predisposition, as Hirsch puts it, exercises its influence through a "congenital disposition toward the disease, a disposition that has to be looked for naturally in the organization of the respiratory system."

The bacillus tuberculosis may be introduced into the human system in various ways, but for practical purposes we may say that "tuberculosis in man is caused by infection (1) through the excretions or discharges from infected animals, including man himself, or (2) the milk of infected animals, including his own species, or (3) the flesh of infected animals.

Statistics prove that it is the pulmonary form of the disease which carries off the greater number of victims of tuberculous infection. Of all the deaths due to the disease, three-fourths are caused by the pulmonary form. The communicability of consumption depends upon the bacillus. It is not communicated by the breath of the affected, nor by

the liquid sputa, no matter how thickly it may swarm with the minute organisms, but when the expectoration dries and fills the atmosphere with a microscopically infected dust, then it becomes more dangerous than an armed foe. It may not only be breathed in with the air and find a favorable repository in the pulmonary tract, but it may also be deposited in food, or on the surface of milk, and in the alimentary system propagate its poisonous secretions.

There are many persons in whose mouths and throats the bacilli may be found, and yet they are in a perfectly healthy condition. In fact, in every large city it would be impossible to entirely eliminate the bacilli, no matter how perfect the sanitary environment might be, since there are so many ambulant cases of the disease. The absence of a pathological lesion in the lungs of the healthy preclude the possibility of infection. But even here the field of bacillary activity has been greatly lessened, as sanitation has placed certain restrictions upon the great American habit of indiscriminate expectoration, which no doubt has not only exercised a soothing influence upon the nerves of sensitive people, but, what is of more practical value, has also had a marked effect in lessening the spread of the disease.

We have touched in a former paper upon the necessity of establishing sanatoria in the neighborhood of large cities, where consumptives could be properly treated without the trouble and oftentimes great inconvenience, mental suffering, physical prostration and expense of a frequently futile journey to the West and South. What we said then was mainly applicable to advanced cases. But as important as these considerations are how much more so when applied to incipient tuberculosis, when, if ever, the disease can be throttled at its very outset. Our

treatment of the first stage of consumption among the poor at the present time is well-nigh barbarous.

We may delay the final outcome by the use of diet and medication, but the patient goes rapidly downward, as his environment remains the same. When the disease has progressed for months, and oftentimes years, we permit them to enter our hospitals and we do what we are able to make their condition comfortable, realizing that death is inevitable and not to be postponed.

How much better it would be, and more in consonance with the judiciously directed philanthropic efforts of our day, if an institution was erected entirely devoted to the management of consumption in its initial and curative stage. It would embrace the very class of people who are not sick enough to be admitted to our general hospitals, nor well enough to pursue their daily labor, which they often do until nature rebels. As an economical problem of considerable financial valuation it would seem to be worthy of municipal attention. There could be applied the latest scientific discoveries with every hope of absolute cure, for climate in itself does not now hold the prominent position it once occupied in the estimation of physicians, and moreover it seems the very apotheosis of cruelty to send a doomed man thousands of miles to find death at the end of his journey, as was often done in the past before we realized the resources of the Empire State. It is on the recognition and appropriate treatment of the first stages of phthisis that thousands of valuable lives depend. We build hospitals for other special diseases, but in the whole range of philanthropic activity there is no demand that should meet with a quicker response than the erection of an institution where tuberculosis in its first stage could be cured.

At repeated intervals we see quotations in our journals, generally copied from foreign publications, of

the use of an ancient remedy in a supposedly new form. Just now it happens to be quinine used in the

shape of a suppository in the various diseases in which the drug is administered. An English practitioner wrote to one of the leading English journals as to the great success he had achieved in overcoming the tinnitus aurium, nausea and other sequelae which usually accompany the administration of fairly large doses of quinine per os. The secret of his success was the use of quinine in rectal suppositories. We venture to say that there are hundreds of physicians in the United States who make use of the same method in the daily administration of quinine, and particularly in the case of children. The writer has done this for years, but never thought it worth while to mention the fact, and yet every other exchange we come across thinks the fact worth noting, and another compliment is paid to the inventive genius of our English confreres.

In another publication we saw an extensive account of the treatment of pneumonia by cold applications, and due credit was given to a German physician of some eminence in Berlin.

In the columns of the "Times and Register" the past winter and spring we have again and again dwelt upon the utility of this method and cited cases to prove the stability of our position, while here in New York Baruch has frequently spoken of its efficacy.

We are too prone to look to foreign countries for light to guide us in the dark ways of disease, but upon investigation we oftentimes discover that it is only a deflected light cast by the rays which originate upon this side of the world. Numerous instances might be cited in support of the above assertions, and it is time to pause and give credit where it is due. In the fields of bacteriological research we confess to the superiority, and that only in a very limited direction, of the Germans; but in the field of clinical medicine—a field that is growing richer and more luxuriant year after year—our powers of observation are as keen and as clearly developed as can be found among the advanced physicians of continental Europe. The

same may be said of surgery. The operations performed in this and other metropolitan centres are as skilfully executed as in any of the great clinics of Europe. And the American surgeon is beginning to recognize that it is not so much in boldness in executing, as conservatism in saving, that the domain of the future surgeon lies.

Let us be more careful, then, to give what is new, and above all things what is practical, and not insert in our medical publications antiquated ideas, simply because they bear a foreign stamp.

The marvelous development that has taken place in the studies and observations of disease in the past 50 years has met with a thorough recognition and appreciation on the part of English physicians in the general review of the arts and sciences and literature that has been devoted to their consideration during the Victorian era. It is simply wonderful to contemplate the successive stages that have led up to the perfection of surgery and medicine, in their different ramifications, that we to-day enjoy. Rescued from the sway of empiricism and placed upon a scientific basis, unassailable in its principles, the practice of medicine has made gigantic strides. And while the human system in its powers and potentialities will ever remain the same, yet there are modifications ever taking place within its boundaries, the direct result of individual peculiarities, coupled with the subtle powers engendered by heredity and environment.

In the past the identity of the individual was lost in the consideration of the disease; to-day, with the more enlightened views that prevail as to the causative factors which lie at the very foundation of disease, as well as the intimate relationship existing between mind and body, it is the patient who engrosses our attention.

We have reduced the loose methods of other days, particularly in the administration of therapeutic remedies, to the accuracy of a scientific basis, and with the perfection which has been acquired in the medical art is coupled a more enlightened view

of the individual, his peculiarities, his susceptibility, his environment, and lastly a keener appreciation of that intangible power which we call heredity. Now we depend more upon fortifying the system against the rapid encroachment of disease by proper nourishment, by sustaining the powers of nature, than upon the use of drugs. The latter have their defined limitations, and he is the best physician who understands their proper application.

The art of diagnosis, too, has rapidly advanced to the front, commensurate with the progress that has been made in other directions. The combination of qualities necessarily required for perfection in diagnosis is a talent not possessed by every physician, but we should all strive to attain exact methods in reason-

ing, accuracy in our modes of examination, and base our results upon scientific deductions, rather than on crude empiricism.

Bacteriological researches have cast a flood of light upon the field of clinical observation, but the true physician should ever remember that after all it is the restoration of the patient's powers wherein medicine finds its true application. Many a theoretical seeker after the germs of disease cannot make an accurate diagnosis at the bedside, and on the other hand many a clinician is unable to distinguish between the gonococcus and the bacillus tuberculosis, but the combination of the bacteriologist and the physician in the same individual produces the happiest effects.



Current Medical Literature.

OPEN YOUR EYES AND STUDY THE CIRCULATION!

Slowly, by degrees, the profession are awakening to the all-important fact that there is but one central idea in medical practice, and that is the circulation of the blood. By this single process has all growth been accomplished, and by this same process must all repairs be made. Consequently, remedial measures are valuable only as they act upon the circulation, either locally or generally. Just in proportion as this conception has secured recognition, to a corresponding degree has the profession been liberalized, so that it now contains large numbers of ardent truth-seekers, who are earnestly making the acquaintance of every available means by which the bloodstream can be fluctuated and controlled. Prejudice is melting away, hostilities to innovations are becoming enfeebled, all hindrances to progress are being torn down, the tyranny of ignorance and conceit is being rapidly overcome, medical monopolies are passing away, and never before in its history has there been such a wholesome and widespread awakening and friendliness in the hearts of medical men to every new idea that can demonstrate its ability to flush or pale bodily tissues. Drugs and knives and local applications no longer constitute a complete medical armamentarium. The part which mental and emotional forces play, not only in the functional activity of all bodily organs, but also in pathological formations, is at last being recognized by medical leaders, and also to a considerable extent by the rank and file of the profession, and a knowledge of

suggestive therapeutics will soon become a necessary part of a complete medical education. The value of osteopathy as a remedial agent will in due time be recognized, and no doubt many other forces as yet unheralded are to be recognized and secure a recognition as legitimate means of cure in the new book of progressive medicine which the last end of the nineteenth century is rapidly compiling.

—E. H. Pratt, M. D., Jour. Orifical Surgery, Sept., '97.

VIRCHOW ON SPECIALISM.

The Berlin public have not lately had so many opportunities as usual of hearing Prof. Virchow, but at an opening meeting of the Congress for Innere Medizin he was called upon to make a speech. His appearance, as is not unusual, met with enthusiastic applause. He said that from the first moment of his public activity he had set himself against specialities. His friend Traube was the first who gave him pause, and whom he gave in to, but not with full conviction. Then one after another came until they came to the great authorities of the present time, of whom he willingly confessed that they had pretensions to appear something special.

Nevertheless, he still cherished the hope that externally the communion of interests that bound together the different branches of medicine would again come into force. From the separation into the Surgical Congresses, those for Innere Medizin, and Gynecological Congresses, with which another, that for Pathology, would soon be associated, proceeded a distraction, from

which arose the appearance that there were greater differences in fundamental views than was really the case.

The individual directions that were considered specialties, spread abroad their pretensions, and nothing was worse in regard to this than pathological anatomy, which was comprised in all of them. It was sometimes the surgeons, sometimes the physicians, sometimes the gynecologists, who specially busied themselves with it. He could not think that this was very fortunate. The old pathologists would cross themselves if they could rise again.

It had been possible, however, that upon this foundation of the newest and most powerful research an attempt has been made to build up a new humoral pathology that progressed victoriously. But even from the speech of the absent president serum therapeutics were not far enough advanced to form the foundation of the therapeutic work of the future.

He went further, and believed that the fortunate results that had been attained in some directions laughed at all explanation, and that there was no theory, but only a practical knowledge, such as had been reached through Jenner in smallpox, where even to-day we were far away from any scientific explanation. He would not, however, offer any opposition if the Royal Government built further on such hopes, from which it believed it had greater certainty than was actually the case.

Med. Press.

THE PRESYSTOLIC MURMUR.

Kasem-Beck makes a communication upon the diagnostic value of this murmur and upon some symptoms connected with aneurism of the heart. The presystolic murmur has usually been looked upon as diagnostic of mitral stenosis, but in recent times cases have been reported in which such a murmur has been heard during life without this lesion having been found after death. A presystolic murmur has been heard in aortic regurgitation; thus in 16 out of 19 such cases mitral stenosis

was not found at the necropsy. In other cases where presystolic and diastolic murmurs have been noted an adhesive pericarditis has been found, and no combined aortic and mitral disease. In Phear's case with similar murmurs there was no pericarditis, but an enlargement of the left ventricle. A presystolic murmur heard at the apex can be produced in aortic disease by the meeting of the two streams of blood coming respectively from the auricle and from the aorta. A presystolic murmur has even been heard by Picot in hysterical cases. Thus the presystolic murmur is not an absolutely reliable sign of mitral stenosis. The author finally records an instance in which a presystolic murmur was heard in a case of dilatation of the mitral orifice. A man aged 63 complained of pains in his arms and dyspnea. A true venous pulse was visible in the thyroid and mammary veins. The powerful apex beat displaced downward and outward was felt in the sixth interspace. The right limit of cardiac dullness extended to the right parasternal line, and the left limit to the mammary line. A presystolic murmur with a muffled first sound was heard at the apex, and the second sound was accentuated. In the tricuspid region the first sound was also muffled, and the second sound was unaccompanied by any murmur. The second pulmonary sound was loud. Arteriosclerosis was present. At the necropsy there was no narrowing of the mitral orifice, but a relative insufficiency of both orifices, the circumference of the left orifice being 130 mm. and of the right 170 mm. Near the apex there was an aneurismal bulging of the size of an apple. There was marked general arteriosclerosis, the vertical branch of the coronary artery being specially involved. The author thinks that the presystolic murmur was due to the ventricular aneurism. In spite of the relative insufficiency of both orifices there was no systolic murmur. The marked raising of the intercostal spaces following the apex beat along with the small radial pulse is a sure sign of aneurism of the heart.

—Centralbl. f. inn. Med., Feb. 13, 1897.

FOREIGN EXCHANGES

Translated by DR. E. W. BING.

INCOERCIBLE VOMITING OF PREGNANCY.

A RAPID CURE—GEOFFROY.

By palpation Geoffroy has found that the vomiting is caused by a reflex contraction of the digestive tube, the pylorus and duodenum, but more particularly of the flexure of the colon at the pelvic end. And this is the point at which the method is to be applied. Prolonged palpation or pressure which permits the recognition of the cause also furnishes the cure. Its action is certain and rapid, in one, two or three very short seances the hyperaesthesia is calmed and the contractions cease. The disappearance of these is coincident with the cessation of vomiting, of which they are the cause, and the cure at once takes place. The author cites numerous cases cured.

—La France Med.

Dr. Knapp (Berlin) has found acetone in the urine of pregnant women, whose children were delivered dead (or macerated), whilst he found none in those who gave birth to living children.

—La France Med.

A case of fatal hemorrhage after cutting the lingual frenum is reported in La France Medicale.

PATHOGENY OF BORBORYGMI.

BY SABRAZIO AND LAMACQ.

1. Spasmodic contractions of the diaphragm play an essential part in their production.

2. The stomach is large, bilocular, contains liquid and gas arising from abnormal fermentations. The rhythmic bruit does not exist.

3. The neuropathic condition of the patient favors the appearance of diaphragmatic spasm.

4. By reducing the gastric curvature by means of a sound and bringing about an energetic compression of the stomach the abnormal sounds disappear.

INFANTILE HYSTERIA.

Infantile hysteria presents the same varieties as in (Bezy, La France Medicale) that of adults, namely, convulsive, non-convulsive and a variety simulating more or less special diseases of childhood. Convulsive hysteria in the child presents the same aspects as in the adult, but it rarely at the onset presents the complete type of a full attack. The attack supervenes after great moral emotion, hypnotism or a terrifying dream. Among the limited forms are: Chorea, which in many cases is a manifestation of hysteria. Spasmodic hysteric cough, which simulates whooping cough or simple bronchitis and often occasions errors in diagnosis. This cough, permanent, or coming on occasionally, is neither paroxysmal nor asthmatic, is very tenacious, ceases during the night, is cured suddenly, and recurs easily. Frequently in order to detect this mono-symptomatic hysteria it is necessary to make the diagnosis by exclusion of disease of larynx or air

passages in general. The hiccough and snuffling, the stammering which appears following any emotion or injury, are easily recognized, but may exist without other hysteric signs. Electric chorea (Bergeron's disease), with its rhythmic and sudden accessions seated almost exclusively in the head and lower limbs. This is considered hysterical by many authors. Partial pseudo-epilepsy, simulating Jacksonian epilepsy, is rare, but is distinguished by the absence of paralysis in the convulsed limbs and the very considerable number of attacks without cerebral involvement. Among the "facts" of non-convulsive hysteria may be cited paralysis, with or without atrophy, commencing about the age of 9 or 10 years and corresponding with the rigidities, and often accompanied by anesthetic zones. The paraplegic form is frequent, but it is true or false, and may take the place of hysterical incontinence of urine. Rigidity of muscles, an early and frequent form of the disorder—a form in which the patient can move his limbs when seated or lying, but is unable to stand upright or walk—is frequent in childhood and may be the first manifestation of hysteria. Digestive disorders are not frequent in the child. They may consist of anorexia, true gastralgia, fecal vomiting; sometimes pseudo-appendicular signs are present.

Trophic Disorders and Muscular Atrophy.—Hysterical muscular atrophy is admitted, but is rare. The atrophy may accompany the rigidity. Cases of nervous urticaria, difficult fever, edema of different parts, angio-neurotic tumors of pugnacious character, gangrenous, cutaneous patches have been noticed. Hemorrhages are rare, but hemoptysis and

hematuria have been noted. Mutism is not frequent, with or without disorder of the speech; it may be preceded by vertigo. Aphonia with unclouded intellect are the diagnostic signs. Circulatory disorders are seen in palpitation, intermittent pulse, alternate flushing and paleness, syncope. Trembling is rare, seated in the upper limbs, and is exaggerated by intentional movements. Pseudo-arthritis has an epidemic aspect and is accompanied by zones of hyperesthesia. Anesthesia and hyperesthesia show nothing special. Psychic disorders are interesting. The little patients are precocious, learning quickly, desire to be admired, have quick affections, are impressionable and jealous and odd. They are also liars, from imitation, interest, desire to do harm to others and from hallucinations. Delusions are frequent, and the diagnosis with epilepsy is difficult. However, we may say that the epileptic delirium is made up of impulse and violence—hysterical delirium of hallucinations. Hypnotism, somnambulism, attacks of sleeping—the first is rare, the second frequent and also the third. Natural somnambulism in the child is indicative of hysteria. The neurosis may be present or show later. Among signs of hysteria simulating affections more or less special to childhood may be mentioned pseudo-coxalgia, pseudo-Potts' disease, pseudo-meningitis, with crisis of headache; pseudo-spasmodic hemiplegia, scoliosis, incontinence of urine and nocturnal terrors are easily diagnosed. The prognosis of infantile hysteria is good, if treatment is commenced early. The latter consists of perfect hygiene, isolation, hydrotherapy, valerian, etc.



Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

*BRIEF NOTES ON INFLAMMATORY, CYSTIC AND DEGENERATIVE DISEASE.

CYSTIC AND SUPPURATIVE LESIONS OF THE TESTES.

It yet remains an open question whether or not cystic disease of the testes is directly or remotely connected with inflammatory changes. As a complicating factor in inflammatory lesion cysts most certainly do exist, but as independent formations, as those of the ovary and elsewhere, they undoubtedly do. Sometimes we will find them proliferating, when they no doubt depend on disturbances of nutrition. Curling believed that they sometimes depended on occluded seminal tubules. The various metamorphoses which they often undergo have been well described by Bottcher (Dorp. Ztcher, 1871, 14, 4). Waldeyer believed that most cysts of the testes depended on changes in the epithelia. He found such conditions in the ovary and the testicle alike in the newborn (Microscop. Anat., pp. 465 and 151). Rindfleisch regarded them as a colisa degeneration of a vascular origin (Handbuch, 1873, p. 481). Delfan believed that they consisted essentially in degenerative changes in dilated tubules, although their myxomatous appearance sometimes rather suggested their lymphoid origin (Malad De Voies Urin et Des Organes-Genit., p. 939, ch. XII). Encysted hydrocele of the testes consist of a tumor senile and pedunculated, usually situated at the head of

the epididymis. It springs up from the remains of the Wolfian bodies and contains spermatozoa. Microscopical examination of removed fluid always determines the precise character of these neoplasms.

Mernet has described as dermoid cyst springing from the base of the testes and encroaching backward into the perineum. Pearce Gould has met with a large dermoid cyst of the testes which had been mistaken for hernia (Lancet, Nov. 7, '94. Bull de Soc. de l'Accat., Nov., '95): Dr. Robert Taylor, of New York, has called attention to the marked tendency of adeno-sarcoma of the testes to undergo central cystic changes (Jour. Cut and Genito-Urni Dis., Aug. 94). Brindel, Krewisiki and others have noted this same transformation of elements in other diseases of the testes than in malignant disease (Jour. De Med., Bordeaux, Mar., '91).

PRIMARY AND SECONDARY CYSTS OF TESTES.

Primary cysts of the myxomatous elements of the spermatic cord in the newborn is common enough, but as a primary pathologic state it is very rare in the testes, almost never in the epithelial elements, occasionally in the epididymis, and most frequently in Morgagni's bodies, or the so-called hydatids of Giraldès.

As a secondary lesion, in either specific or malignant disease of the testes, it is very frequent; the elements of the cysts generally consisting of degenerate epithelia. Suppurative degeneration—intracystic—

no doubt do occur in the testes as well as elsewhere. It may occur as well in the deep parenchymatous as those located on the surface of the organ.

This metamorphosis, no doubt, is attended with microbic invasion, but it is first induced, without doubt, by constitutional conditions or local injury to the part. For example, one may be conscious of an elastic fullness in one of his testicles, which will never give him any annoyance, possibly, unless he develop grippe or tuberculosis, or has in some manner sustained a contusion of the testicle. Now, local with constitutional symptoms are made manifest with evidence of suppurative changes, which may go on to spontaneous discharge, widespread diffusion or possibly inspissation, disintegration and resorption.

SUPPURATIVE TESTES, INFECTIOUS OR CONSECUTIVE TO MALIGNANT DISEASE.

Tubercular testes or any description of open suppuration of the testes is not often met with, except in connection with pulmonary disease. The progress of the infection is slow, as a rule, until advanced stages of the lung disease are reached. There are many exceptions, however, for quite a few cases presenting features of tubercle, with abscess formation, have but indefinite and uncertain signs of lung disease.

In tubercle testes the histological elements of the paronchyma are first involved, probably the lymphatic and plasmic tracts, at the outset; later capillary thrombosis succeeds, and epithelial invasion follows:

When tubercular bacilli are found in this type of suppuration we usually see them in greater number around or within the nuclei of the cast of epithelia than in the protoplasm.

In undeveloped cases of tubercular suppuration of the testes it is easy to conceive of transference of the malady to the female, or its development in the fetus through the bacteria acting directly on the cuboidal neelei, of which the spermatazoa are ultimately formed.

It is well to remember that in dealing with purulent testes we must deviate in our treatment of it from a well-established law in surgery, viz., not to hazard any extensive mutilating operation on the organ of the subject of well-established tuberculosis of the lungs.

There are very cogent reasons for this departure: Because in suppuration, tubercular orchitis, with psychical disturbances are often well accentuated, our patient is morose and extremely despondent and more in certain instances, when the tension of the pyogenic membrane is considerable, the degree of bodily exhaustion and cardiac depression may be alarming. I saw a man last year who was brought near the moribund state by an interstitial, tubercular abscess of the right testicle, but free incision, evacuation and draining effected the most remarkable transformation. Several other instances have come under my care with similar salutary effects after incision or castration. Another reason, independent of effecting relief, comes from surgical intervention here; the patient, for a time at least, rapidly regains strength and vigor; an additional lease of life is enjoyed.

Recent microscopical examinations have demonstrated that when acute suppurative orchitis follows typhus, typhoid fever or pneumonia the bacterium coli or pneumococci are present in great numbers. It is most extraordinary to note when the ravages of gangrenous erysipelas seize on the scrotal tissues how the testes and end stand out nude and defiant of the streptococcus, so dreaded in the serous or connective tissues.

Degenerative changes affecting the testes may be divided into: First, those attended with marked atrophic changes, or wasting and shrinking of the organs; second, those in which the interstitial pathologic changes destroy the anatomic, secreting elements and function, without diminution in volume of the organ.

Of the first we have the most marked examples in those cases of imperfect descent or imperfect development of a congenital origin, in

ectopic testes. In this class atrophy is generally limited to one side.

Of the second division we have enlargement from vascular engorgement, a low grade of hyperplasia or interstitial serous infiltration. When trophic changes of the foregoing description are unilateral the pathologic changes are in most instances primarily in the blood vessels and in the veins, the individual has so-called spermatocele, varix or phlebectasia, the nutrition of the gland is impaired, there is diminished function in proportion to the extent of degenerative changes.

*By Thomas H. Manley, M. D., Clinical Recorder, July, 1897.

CERTAIN CYSTS OF THE ABDOMINAL WALL,

was a paper confined to a consideration of abnormalities of the urachus. After referring to the anatomy of the structure he first took up the consideration of vesico-umbilical fistula. These fistulae are not very uncommonly encountered during infancy and childhood. They frequently close spontaneously. In adult life the condition is unusual. As an instance he quoted cases reported by Freer, of Washington; Schullenbach, Hoffman and Holscher. The last-named is somewhat remarkable in that it followed an attack of gonorrhea. A man, 25 years of age, had a stricture as a result of that disease, the atresia of the canal being so great that it was only with difficulty that a filiform bougie could be passed. From this condition he suffered during several years, when the habitual retention of urine in the bladder caused a mechanical dilatation of the urachus, which set up an ulcerative process and caused perforation of the umbilicus through which the urine found exit. It was easy to completely evacuate the bladder through this opening by compressing the viscus above the symphysis pubis.

Usually there exists in an acute or chronic form some pronounced disease of the urethra or bladder, resulting in retention of urine or great vesical tenesmus. Suddenly there develops a tumor just above the

pubis, at first of small size, distinctly circumscribed, quite hard, non-fluctuating, on account of the tenuity of the walls, and sometimes very tender. There is marked diminution in the amount of the urine, and usually great dysuria. Nausea, vomiting and great depression ensue. Pain over the entire lower abdomen is a constant symptom. Gradually the tumor enlarges, becomes softer, more elastic and fluctuating. The local signs and general symptoms depend entirely upon the character of the urine, which is forced backward into the urachus; if it is septic a purulent inflammation of the walls of the urachus develops and the hypogastric tumor may closely resemble an acute abscess. There is, however, a frequent and more fortunate termination for these cases, in which the tumor retains vesical connection, as by catheterization or otherwise the distended bladder is relieved, the urachus is drained into the bladder, the tumor suddenly disappears and all pain and symptoms quickly subside.

The essayist then referred to the form of urachal cyst arising from a dilatation of the greater portion of tube, the vesical and umbilical ends of which are closed, and reported a case occurring in his own practice. The patient was operated upon on June 20, 1896. There apparently was no ligamentous attachment between the cyst and the bladder. The cyst was removed and an area of peritoneum extending from about three inches above the umbilicus to the symphysis and from two inches to the left of the linea alba and throughout the lumbar and iliac regions of the right side was separated from the parietes. Twenty-four hours after operation the patient became very dull, vomited freely and was inclined to sleep. She died the following day. Upon autopsy the entire detached peritoneum on the right side was found to be gangrenous. The peritoneum had not been stitched to the abdominal wall during the operation, as it was thought intraabdominal pressure would restore it to its former position.

—By Dr. Richard Douglas, of Nashville, Tenn., Rich. Jour. of Practice.



Miscellany.

EUCAINE "B" AS A LOCAL ANESTHETIC IN SURGERY.

BY DR. LOHMANN, BERLIN.

At the suggestion of Dr. Thomalla, surgeon in chief of Accident Station No. VI, I now proceed to publish the results that we have obtained from the use of Eucaine "B" as an anesthetic in the domain of surgery. Quite early in our experience with the drug we abandoned the use of the weaker (3 per cent.) solutions, whose action was not satisfactory, and employed 10 per cent. solutions, with which we obtained most excellent results. We had occasion to employ the anesthetic in this concentration for the opening of abscesses and the incision of carbuncles, inflammations of the cellular tissue, of the tendonous sheaths, in the suture of tendons, in the removal of a great number of foreign bodies, and for the exarticulation of digits.

In the treatment of the abscesses and carbuncles we injected one to two hypodermic syringefuls (15 to 30 minims) of the 10 per cent. solution, and we could then quietly and without any pain make the necessary incisions and curettings. The same amount of the anesthetic was employed for the painless operation of small abscesses, for the larger ones three to four syringefuls were needed. We are fully convinced that any abscess at all can be opened painlessly under Eucaine anesthesia; for as much as 3 grms. (45 grains), equaling 30 syringefuls of the 10 per cent. solution, may be injected in the adult without any fear of causing toxic symptoms.

Among the many foreign body extractions that were done under Eucaine "B" I may be permitted to mention a very characteristic one more in detail. A needle had penetrated the foot of a girl 10 years of

age and had been broken off, leaving the point, about 2 cm. (7-8 inch) long, imbedded in the tissues. The needle had entered the foot at the dorsum; its point lay under the fasciae, deep down in the foot. From three-quarters of an hour to an hour were required to locate and extract the needle. After the use of a single syringeful of the 10 per cent. solution both operations could be quietly done. Only toward the end of the operation did the patient show slight sensibility.

In the exarticulation of the fingers from one to two syringefuls of the solution were sufficient. The first case of this kind was that of a 13-year-old boy, in whom we exarticulated between the first and second phalanx of the third, and the second and third phalanx of the fourth fingers. For both digits we used about one and one-quarter syringefuls; about three-quarters of a syringeful upon the flexor and one-half syringeful upon the extensor surfaces. When we commenced to operate, after the lapse of about a minute, the boy complained somewhat, but by pricking the finger with a needle, which the boy did not feel at all, we soon convinced ourselves that his cries were not caused by pain. When the boy's face was covered both exarticulations were done without further disturbance. Another boy, in whom an exarticulation was done under the influence of about one and one-half syringefuls of the 10 per cent. Eucaine solution, cried dreadfully when the first dressing was removed, about a week after the operation, though he had been entirely quiet during the surgical procedure itself.

A third and very instructive case deserves to be mentioned. A factory operative 20 years old had received a severe contusion of the second, third and fourth fingers of the

left hand. The exarticulation of the terminal phalanx of the index finger and the amputation of the middle finger were indicated; on the ring finger only the nail was destroyed, being almost torn off. I injected into the index finger about one and one-half syringefuls of a 10 per cent. Eucaine "B" solution, using one syringeful for the flexor and one-half a syringeful for the extensor surfaces of the second phalanx; the same amount was similarly employed for the middle finger, and the ring finger received one-half a syringeful. During the operation, which was begun about a minute after the injection, the patient complained of at first slight and later more violent pains in the ring finger, which was the one less severely injured, and had received only one-half a syringeful of the solution. In both the other fingers there was not the slightest pain during the operation.

In none of our cases did we see any unpleasant by-effects or toxic symptoms. In regard to the statement in the *Bulletin Medical*, 1897, No. 47, that "Eucaine 'B' is much less toxic than Eucaine 'A'—as a local anesthetic eucaine has been found to be greatly inferior to cocaine," can only repeat that my experience shows that eucaine "B" in 10 per cent. solution is much more powerful in its action than cocaine and the other older local anesthetics.

In view of all its advantages, besides the above-mentioned ones, its non-decomposition under sterilization, and also because of its favorable and very satisfactory action, eucaine "B" deserves to be more generally employed in surgery. We cannot recommend it too warmly to the profession in general, and more especially to the country practitioner, whom it will help over many difficulties.

—Therapeutische Monatshefte No. 8, August, 1897, p. 427.

HYPODERMIC ALIMENTATION WITH OLIVE OIL.

Fornace and Micheli have been experimenting in five cases with hypodermic injections of olive oil (50 c. cm. at a time). In all the cases

there was more or less marked saving in the nitrogen eliminated, and a notable increase in weight and improvement in the general condition. Practically none was passed as fat in either the urine or the feces. No fat embolism was observed. In one case after 30 injections small nodules containing a drop of oil were found in the lymphatics at the site of injection. The authors consider that the nutritive value of these hypodermic injections are higher than that of rectal or vaginal nutritive enemata. No inconveniences followed the use of the olive oil in injections, and they were well borne by the patients.

—Rif. Med., July 14 and 15, 1897.

MILK AND AMMONIA EXCRETION.

Ad. Czerny and Keller state in a preliminary communication that the considerably increased ammonia excretion in suckling infants suffering from gastro-intestinal affections is due to the presence of unusually large quantities of acid in the body. Acids may arise owing to fermentative processes in the intestinal canal or through intermediary metabolism. Milk gives rise to acid production through the fat, milk, sugar or albuminous matters present in it. The authors have sought to discover by experiment which of these constituents gives rise to the greatest ammonia excretion. As feeding with the single constituents was found impossible, they have experimented with various kinds of milk containing different amounts of these constituents. Neither the albuminous matters nor the milk sugar produced it, whereas by diminishing the fat the ammonia excretion became less, and vice versa. The increased ammonia excretion in suckling infants with gastro-intestinal affections is due to the splitting up of fat. The resulting acids are not destroyed in the body, as in these cases the oxidation processes in the body are lessened. Thus a suitable diet in these cases is only such that the nutrient substances contained in it are burnt up in the body.

—Centralbl. f. inn Med., August 7, 1897.